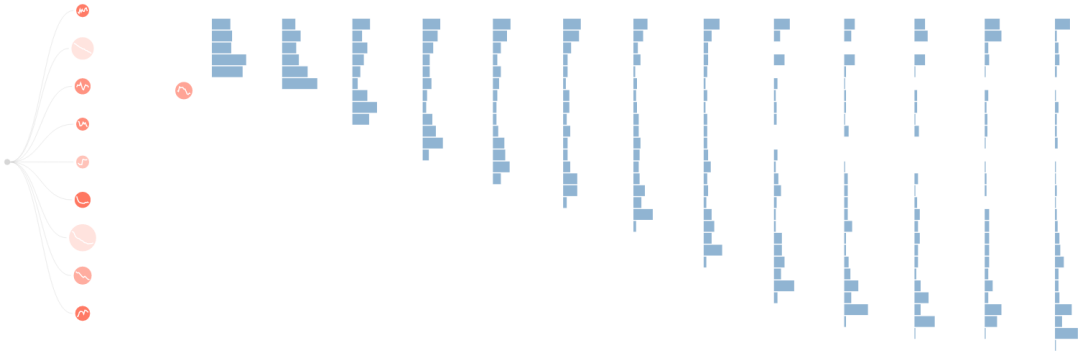
Weekly Report 2016.12.12-2016.12.18

Progress:

1. **Temporal Ensemble Rankings**



Visual Design:
I plan to revise the visual design of the rank view to a two-stage view. In the first stage, the user drag clusters from the cluster view to the rank view, then the distribution of the rankings is shown by histogram as shown in the figure. In this way, an overview of the rankings can be observed. After this, the user can brush rankings at each time step. A revised Sankey diagram will be overlaid on the histogram to show the evolution of selected ensembles. These ensembles are displayed by circles in the Sankey diagram.

I have already implemented the histogram, next week I will implement the Sankey diagram with Dongming Han.

The fuzzy logic system of the visual mapping is done.

Also the revised detail view is finished by Luming Wang.

2. **TCP Tree**
3. **Anomaly Detection in Dynamic Graphs**

I read the paper, *discovering rare categories from graph streams.* This paper proposed three models, called SIRD, BIRD, and BIRD-LI, to detect rare categories in the dynamic graphs or graph streams.

I have been considering the visualization of rare categories in dynamic

graphs, but have no ideas yet.

Plan:

1. **Huawei Project**

Write the patent and go to Huawei for final check.

2. **Temporal Ensemble Ranking Data**

Talk with Prof. Wu, and revise the paper as soon as possible.